Work Order ID 106195 D3415-041 B106195 *106195* Page 1

August-28-13 1:00:35 PM

Item ID: D3415-041 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Nut Plate

Start Date: 8/28/13 **Start Qty:** 20.00 *20* **Cust Item ID:**

Required Date: 8/28/13 **Req'd Qty:** 20.00 *20* **Customer:**

Reference:

Run Start *NR1*

Approvals: **Process Plan:** MLJ **Date:** 13-08-30 **Tooling:** _____ **Date:** _____ **Stop** *NR2*

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	**Revision Nbr**								
D3415	Rev B								
100	FLOW WATER JET	0.00				32		EL	13-12-31
100									
Waterjet	**Memo**	0.00							
FLOW CNC Waterjet	1-Cut as per Dwg D3415 Dwg Rev: B Prog Rev: B 2- Deburr if necessary								
304.063									
110	QC2- Inspect parts off machine FAI/FAIB	0.00				32		EL	13-12-31
110									
QC	**Memo**	0.00							
Quality Control									
120	QC8- Inspect parts - second check	0.00				(32)		14.01.02	DAS 9 9-89
120									
QC	**Memo**	0.00							
Quality Control									

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other _____

Item ID: D3415-041 **Accept** *N900040100* **Setup Start** *NS1*
Revision ID: **Stop** *NS2*
Item Name: Nut Plate
Start Date: 8/28/13 **Start Qty:** 20.00 *20* **Cust Item ID:**
Required Date: 8/28/13 **Req'd Qty:** 20.00 *20* **Customer:**
Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____ **Run Start** *NR1*
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____ **Stop** *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Small Fab	0.00				32			14/01/07 DAS 36 9-89
130 Small Fab	**Memo**	0.00							
Small Fab	1- Deburr 2-C'sink as per Dwg D3415								
140	QC5- Inspect part completeness to step on W/O	0.00				32			
140 QC	**Memo**	0.00							
Quality Control									
150	White Gloss(Ref:4.3.5.1) per QS1005 4.3-Alum M126 887	0.00				32			14-1-15 DAS 25 9-89
150 Powdercoat	**Memo**	0.00							
Powder Coating	START TIME: 10:45 OVEN TEMPERATURE: 400 FINISH TIME: 11:15								

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

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- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

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- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
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- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

_____

_____

_____

Item ID: D3415-041 **Accept** *N900040100* **Setup Start** *NS1*
Revision ID: **Stop** *NS2*
Item Name: Nut Plate
Start Date: 8/28/13 **Start Qty:** 20.00 *20*
Required Date: 8/28/13 **Req'd Qty:** 20.00 *20*
Reference:
Cust Item ID:
Customer:

Run Start *NR1*
Stop *NR2*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	QC3- Inspect Part Finish	0.00				32			14/01/16 DAS 36 9-89
160									
QC	**Memo**	0.00							
Quality Control									
170		0.00							
170	Small Fab								
Small Fab	**Memo**	0.00				32			14/01/16 DAS 36 9-89
Small Fab	Install Nut plate as per Dwg D3415								
180	QC5- Inspect part completeness to step on W/O	0.00				32			DAS 27 9-89 14/1/16
180									
QC	**Memo**	0.00							
Quality Control									

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

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- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

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- ☐ Grain
- ☐ Hardware
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Item ID: D3415-041 **Accept** *N900040100* **Setup Start** *NS1*
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Item Name: Nut Plate
Start Date: 8/28/13 **Start Qty:** 20.00 *20* **Cust Item ID:**
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Reference:

Run Start *NR1*
Stop *NR2*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190	Identify as per dwg & Stock Location: ST042	0.00							
190						32x	DAS 28 ~~9-89~~	14-01-16	
Packaging	**Memo**	0.00							
Packaging									
200	QC21- Final Inspection - Work Order Release	0.00							
200						MCJ		14-01-21	
QC	**Memo**	0.00							
Quality Control									

14-01-17

DQA: _____ Date: _____

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WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

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- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

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- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other _____

Picklist Print

August-28-13 1:00:38 PM

Work Order ID: 106195 *106195*

Parent Item: D3415-041 *D3415-041*

Parent Item Name: Nut Plate

Start Date: 8/28/13 **Required Date:** 8/28/13

Start Qty: 20.00 **Required Qty:** 20.00

Comments: IPP: A05.10.03New issueKJ/JLM
IPP Rev:B Now on Waterjet 07-03-06 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MS20613-3C3 *MS20613-3C3* RIVET MS20427M3-3		Purchased	No			100	Each	120.0000	2 **	40		14/01/16	DAS 36 9-89
				Location			**Loc Qty**		**Loc Code**				
				ST312			120						
					17654		120						
M304S16GA *M304S16GA* 304/316 Sheet .063		Purchased	No			170	sf	246.8822	0.0131 **	0.27579			
				Location			**Loc Qty**		**Loc Code**				
				MAT020			246.8821686						
					122245		0.1713688						
					123136		140.8						
					124428		23.61						
					125599		5.410631						
					M126159		76.8901688						
MS21070L4 *MS21070L4* Inventory		Purchased	No			170	Each	203.0000	1 **	20		14/01/16	DAS 36 9-89
				Location			**Loc Qty**		**Loc Code**				
				ST317			203						
					105878		203			32			

M126915 X 0.66 sqft

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

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- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
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- ☐ Outside Dimensions
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- ☐ Over/Under tolerance
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- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

_____

_____

_____

DART AEROSPACE LTD	Work Order:	106195
Description: Nut Plate	Part Number:	D3415-041
Inspection Dwg: D3415 **Rev:** B		Page 1 of 1

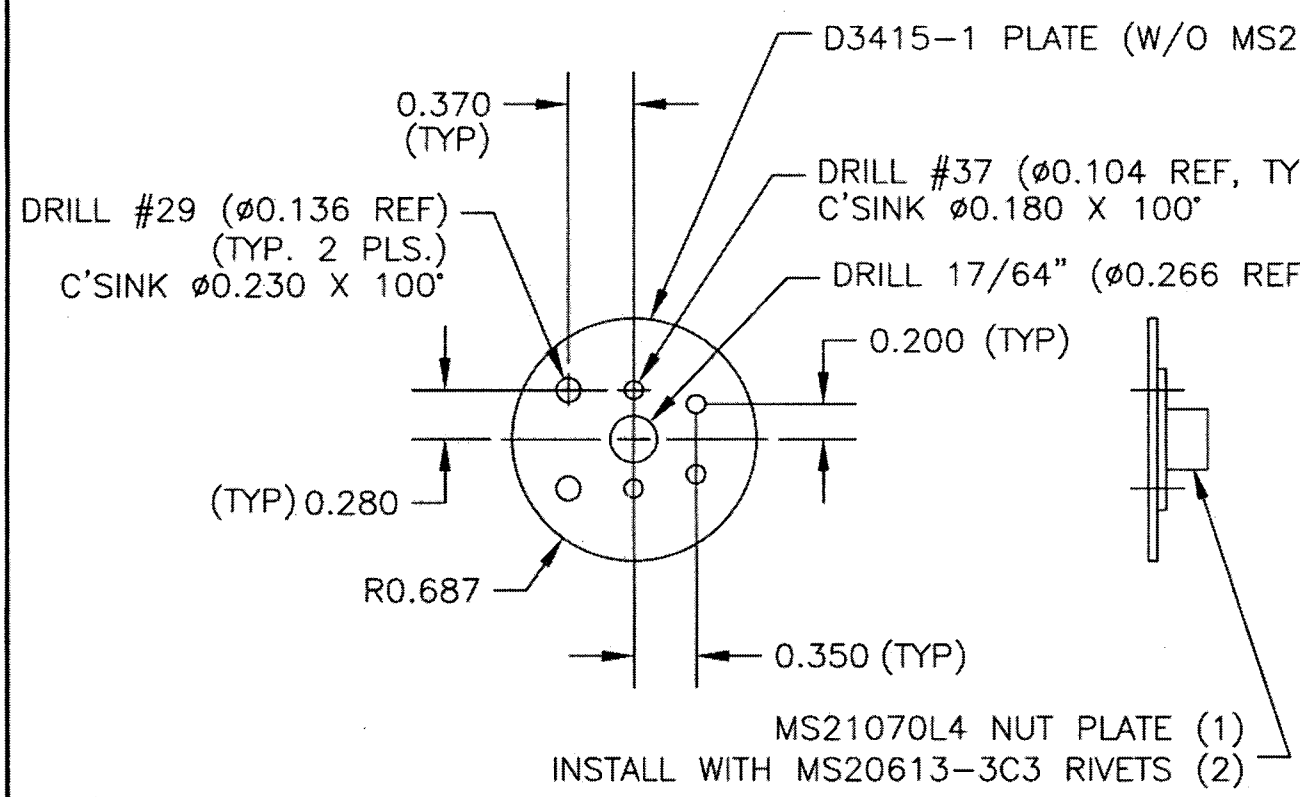
FIRST ARTICLE INSPECTION CHECKLIST

[X] First Article [ ] Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.370	+/-0.010	0.367	✓		✓ JKM05	
0.280	+/-0.010	0.279	✓			
0.350	+/-0.010	0.349	✓			
0.200	+/-0.010	0.199	✓			
Ø0.266	+0.006/-0.001	0.168	✓			
Ø0.104	+0.004/-0.001	0.108	✓			
Ø0.136	+0.005/-0.001	0.140	✓			

Measured by:	EC	Audited by:	DAS 9 9-89	Prototype Approval:	N/A
Date:	13-12-31	Date:	14-01-02	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	07.09.26	New Issue	KJ/EC/DD	EC



D3415-041 NUT PLATE

1) MATERIAL: AISI 304 SS SHEET, 0.063 THICK
   (16 GAUGE, REF DART SPEC. M304S16GA)
2) FINISH: POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
4) ALL DIMENSIONS ARE IN INCHES
5) BREAK ALL SHARP EDGES 0.005 TO 0.015

A	05.03.16	NEW ISSUE
B	05.09.07	ENLARGE ALL HOLES FOR POWDER COAT

DESIGN: CP | DRAWN BY: CP | CHECKED | APPROVED | DATE: 05.09.07

DART AEROSPACE USA, INC.
PORT HADLOCK, WA

DRAWING NO. D3415 | REV. B | SHEET 1 OF 1 | SCALE 1:1

TITLE: NUT PLATE

RELEASED 05.09.07

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